

WHAT IS CLAIMED IS:

1. A method for correcting laser power by simulating a recording process, used for correcting a laser power of an optical disk drive system, said laser power being generated by an optical pick-up head of said optical disk drive system in response to an operational control signal and an operational power parameter, said method comprising:

5 setting said operational control signal and said operational power parameter such that said optical pick-up head is not damaged by the operation range of said optical pick-up head; and

measuring a sample holding value of said laser power generated by said optical pick-up head.

2. The method of claim 1, further comprising:

defocusing said optical pick-up head before measuring said sample holding value.

3. The method of claim 2, wherein said defocusing step is performed by rotating said optical pick-up head such that the focus of said optical pick-up head is not located on the tested disk.

4. The method of claim 2, wherein said defocusing step is performed by changing the distance between said optical pick-up head and a tested disk such that the focus of said optical pick-up head is not located on the tested disk.

5. The method of claim 2, wherein said defocusing step is performed by moving said optical pick-up head to a side of a focus.

6. The method of claim 2, wherein said defocusing step is performed by removing said optical pick-up head from a focus.

7. The method of claim 1, further comprising:

changing said operational power parameter; and  
measuring a plurality of sample holding values of said laser power generated by  
said optical pick-up head in accordance with different said optional power parameters.

8. The method of claim 7, further comprising:

5       applying a curve fit method to obtain a curve representing a relationship  
between said operational power parameter and said laser power based on said measured  
sample holding values.

9. The method of claim 1, wherein said operational control signal has a duty  
cycle less than a duty cycle specified in a specification of said optical pick-up head.

10       10. The method of claim 1, wherein said sample holding value is obtained by  
measuring said laser power via an output of a sample holding circuit.

11.     A method for correcting laser power by simulating a recording process,  
used for a optical disk drive system, said optical disk drive system in response to an  
operational control signal and an operational power parameter controlling an optical  
15     pick-up head to generate laser beams with a laser power, said method comprising:

setting said operational power parameter;

causing said operational control signal to be the same as an operational control  
signal for an actual disk recording process;

transferring said laser beams to a signal, sampling and holding said signal to  
20     obtain a sample holding signal;

obtaining said laser power based on said sample holding signal; and

changing said operational power parameter and repeating the above steps to  
obtain another said laser power.

12. The method of claim 11, further comprising:

applying a curve fit method to obtain a curve representing a relationship between said operational power parameter and said laser power based on said operational power parameters and said laser powers.

13. The method of claim 11, further comprising:

5       defocusing said optical pick-up head before transferring said laser beams.

14. The method of claim 13, wherein said defocusing step is performed by rotating said optical pick-up head such that the focus of said optical pick-up head is not located on the tested disk.

15       15. The method of claim 13, wherein said defocusing step is performed by  
10       changing the distance between said optical pick-up head and a tested disk such that the focus of said optical pick-up head is not located on the tested disk.

16. The method of claim 13, wherein said defocusing step is performed by moving said optical pick-up head to a side of a focus.

17. The method of claim 13, wherein said defocusing step is performed by  
15       removing said optical pick-up head from a focus.